

CLAIMS

I claim:

- 5 1. A mold apparatus for manufacturing a surface patterned block, the apparatus comprising:
- a resilient template supported in a support frame, the resilient template having a relief pattern therein; and
 - a setting substrate, supported in the support frame and on the resilient
- 10 template, the setting substrate having at least one moldable surface, the relief pattern contacting the moldable surface and transferring the relief pattern to the moldable surface so as to form the surface patterned block.
- 15 2. The apparatus, according to claim 1, in which the support frame includes a base member with first and second spaced apart edges, a first end member and a second end member contacting the respective first and second spaced apart edges, the base member and the spaced apart end members being connected so as to define a hollow mold, the resilient template being located in
- 20 the hollow mold.
- 25 3. The apparatus, according to claim 2, in which the first edge of the base member has a first radius of curvature and the second edge of base member has a second radius of curvature, the second radius of curvature being larger than the first radius of curvature.
- 30 4. The apparatus, according to claim 3, in which the second end member includes a support panel having first and second panel surfaces and a pad connected to the first panel surface, the pad facing inwardly towards the second base member edge.

5. The apparatus, according to claim 4, in which the pad includes first and second surfaces, the first surface having thereon a surface pattern, the second surface being smooth.
- 5 6. The apparatus, according to claim 5, in which the support panel is positioned generally orthogonal to the base member and against the second base member edge.
7. The apparatus, according to claim 6, in which the support panel is made
10 of a first resilient material.
8. The apparatus, according to claim 7, in which the pad is made of a second resilient material.
- 15 9. The apparatus, according to claims 8, in which pushing blocks are connected to the second panel surface to curve the support panel and the pad towards the first end member, the support panel and the pad having the same radius of curvature as the second radius of curvature.
- 20 10. The apparatus, according claim 9, in which the first end member is a resilient hollow tube having a concave recessed portion facing the second end member.
11. The apparatus, according to claim 10, in which the hollow tube is
25 positioned against the first edge of the base member and is curved away from the second end member, the hollow tube having a radius of curvature the same as the first radius of curvature.
12. The apparatus, according to claim 11, in which the recessed portion has
30 a rectangular opening which is sufficiently large to receive therein an amount of the setting substrate.
13. The apparatus, according to claim 12, in which the resilient template includes a cloth embedded in a layer of latex having the relief pattern.

14. The apparatus, according to claim 13, in which the resilient template includes a reinforcing wire mesh embedded in the layer of latex.
- 5 15. The apparatus, according to claim 14, in which the relief pattern is a natural stone surface pattern.
16. The apparatus, according to claim 1, in which the surface patterned block includes at least one patterned surface thereon.
- 10 17. The apparatus, according to claim 16, in which the surface patterned block includes two curved edges and two smooth edges, one of the curved edges having the relief pattern thereon.
- 15 18. The apparatus, according to claim 17, in which the curved edges are complementary to the first and second end members.
19. A mold apparatus for manufacturing a surface patterned block, the apparatus comprising:
- 20 - a support frame including a base member with first and second spaced apart edges, a first end member and a second end member contacting the respective first and second spaced apart edges, the base member and the spaced apart end members being connected so as to define a hollow mold for receiving a resilient template and a setting substrate.
- 25 20. The apparatus, according to claim 19, in which the resilient template includes a relief pattern for contacting a moldable surface on the setting substrate, supported in the support frame and on the resilient template, the relief pattern being transferred to the moldable surface so as to form the surface
- 30 21. The apparatus, according to claim 20, in which the first edge of the base member has a first radius of curvature and the second edge of base member

has a second radius of curvature, the second radius of curvature being larger than the first radius of curvature.

22. The apparatus, according to claim 21, in which the second end member
5 includes a support panel having first and second panel surfaces and a pad connected to the first panel surface, the pad facing inwardly towards the second base member edge.

23. The apparatus, according to claim 22, in which the pad includes first and
10 second surfaces, the first surface having thereon a surface pattern, the second surface being smooth.

24. The apparatus, according to claim 23, in which the support panel is
15 positioned generally orthogonal to the base member and against the second base member edge.

25. The apparatus, according to claim 24, in which the support panel is made of a first resilient material.

20 26. The apparatus, according to claim 25, in which the pad is made of a second resilient material.

27. The apparatus, according to claims 26, in which pushing blocks are
25 connected to the second panel surface to curve the support panel and the pad towards the first end member, the support panel and the pad having the same radius of curvature as the second radius of curvature.

28. The apparatus, according claim 27, in which the first end member is a
30 resilient hollow tube having a concave recessed portion facing the second end member.

29. The apparatus, according to claim 28, in which the hollow tube is positioned against the first edge of the base member and is curved away from

the second end member, the hollow tube having a radius of curvature the same as the first radius of curvature.

30. The apparatus, according to claim 29, in which the recessed portion has
5 a rectangular opening which is sufficiently large to receive therein an amount of the setting substrate.

31. The apparatus, according to claim 30, in which the resilient template
10 includes a cloth embedded in a layer of latex having the relief pattern.

32. The apparatus, according to claim 31, in which the resilient template includes a reinforcing wire mesh embedded in the layer of latex.

33. The apparatus, according to claim 32, in which the relief pattern is a
15 natural stone surface pattern.

34. The apparatus, according to claim 19, in which the surface patterned block includes at least one patterned surface thereon.

20 35. The apparatus, according to claim 34, in which the surface patterned block includes two curved edges and two smooth edges, one of the curved edges having the relief pattern thereon.

36. The apparatus, according to claim 35, in which the curved edges are
25 complementary to the first and second end members.

37. A method of making a surface patterned block, the method comprising:
- transferring a relief pattern of a resilient template to a moldable surface
of a setting substrate in contact with the relief pattern, the setting
30 substrate being supported in the support frame, according to claim 1, so as to form the surface patterned block.

38. The method, according to claim 37, in which the relief pattern is produced by adding a layer of latex onto a natural stone having a natural stone surface pattern.

5 39. The method, according to claim 38, further includes embedding a cloth in the layer of latex.

40. The method, according to claim 39, further includes embedding a reinforcing wire mesh in the layer of latex.

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41. The method, according to claim 40, in which the surface patterned block includes at least one patterned surface thereon.

15 42. The method, according to claim 41, in which the surface patterned block includes two curved edges and two smooth edges, one of the curved edges having the relief pattern thereon.

43. The method, according to claim 42, in which the curved edges are complementary to the first and second end members.

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44. A surface patterned block manufactured using the method, according to claim 37.

25 45. The block, according to claim 44, in which the surface patterned block includes at least one patterned surface thereon.

46. The block, according to claim 45, in which the surface patterned block includes two curved edges and two smooth edges, one of the curved edges having the relief pattern thereon.

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47. The block, according to claim 46, in which the curved edges are complementary to the first and second end members.

48. The block, according to claim 47, is a coping stone.